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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,796	06/30/2003	Yaron Elboim	42P16563	1929
59796	7590	05/04/2006	EXAMINER	
INTEL CORPORATION c/o INTELLEVATE, LLC P.O. BOX 52050 MINNEAPOLIS, MN 55402			KIM, HAROLD J	
			ART UNIT	PAPER NUMBER
			2181	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,796

Applicant(s)

ELBOIM, YARON

Examiner

Harold Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Fritz Fleming
FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100
Au2181

Supervisory

4/12/2006

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/17/2006 has been entered.
2. This action is responsive to applicant's amendment filed on 2/17/2006, which has been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendments made to the claims, are not persuasive.
3. Claims 1-21 are presented for examination.
4. It is hereby acknowledged that the claims 22-24 have been cancelled.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-17 and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Richmond, USPGPUB No. US 2002/0041650 A1.**

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7. In re claim 1, Richmond shows a method comprising:

determining whether data most recently read out includes dummy data

[paragraph 0031, lines 7-12; primitive is dummy data];

determining whether an overflow state exists in part response to a determination that the data most recently read out includes dummy data [80, 52 in fig 3; fig 5; paragraph 0031, lines 12-18];

determining whether an underflow state exists in part in response to a determination that the data most recently read out includes dummy data [80, 52 in fig 3; fig 5; paragraph 0031, lines 1-12];

selectively skipping over dummy data and reading out contents of a next storage location in response to an overflow state [Receive Ahead, Fig 5; paragraph 0031, lines 12-19]; and

selectively reading out at least one duplicate [paragraph 0037, line 11] of previously read out data in response to an underflow state [Transmit Ahead, fig 5].

8. In re claim 2, Richmond shows selectively reading out data of a next storage location in response to most recently read out data not including dummy data [All OK, do nothing in fig 5].

9. In re claim 3, Richmond shows selectively reading out data from a next storage location in response to no overflow and no underflow states [All OK, do nothing in fig 5].

10. In re claim 4, Richmond shows the selectively skipping over dummy data comprises skipping over at least one storage location [paragraph 0034, lines 1-13].

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11. In re claim 5, Richmond shows wherein the overflow state comprises a number of addressable storage locations between storage locations in which write and read operations most recently took place being equal to or greater than a specified margin [Receive ahead = receive address - transmit address > maximum address/2 in fig 5].

12. In re claim 6, Richmond shows wherein the underflow state comprises a number of addressable storage locations between storage locations in which write and read operations most recently took place being equal to or less than a specified margin [Transmit ahead = transmit address - received address > maximum address/2 in fig 5].

13. In re claim 7, Richmond shows writing data into storage locations according to a first clock rate, wherein each act of reading out is based on a second clock rate and wherein the first and second clock rates differ [paragraph 0003].

14. In re claim 8, Richmond shows determining the occurrence of a symbol [any character or any defined, paragraph 0011, lines 2-7; and providing the symbol in parallel as data available for writing into storage locations [82, 84, 86, 88 in fig 3].

15. In re claim 9, Richmond shows an apparatus comprising:

at least one integrated circuit [fig 3], wherein the integrated circuit is to include the capability, either alone or in combination with other integrated circuits, to:

determine whether data most recently read out includes dummy data [paragraph 0031, lines 7-12, primitive is dummy data];

determining whether an overflow state exists in part response to a determination that the data most recently read out includes dummy data [80, 52 in fig 3; fig 5; paragraph 0031, lines 12-18];

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determining whether an underflow state exists in part in response to a determination that the data most recently read out includes dummy data [80, 52 in fig 3; fig 5; paragraph 0031, lines 1-12];

selectively skip over dummy data and read out contents of a next storage location in response to an overflow state [Receive Ahead, Fig 5; paragraph 0031, lines 12-19], and

selectively read out a duplicate [paragraph 0037, line 11] of previously read out data in response to an underflow state [Transmit Ahead, fig 5], wherein the at least one duplicate of previously read out data excludes dummy data and is independent of content of data [paragraph 0037; align character].

16. The claims 10-16 are rejected same rationale as claims 2-8.

17. In re claim 17, Richmond shows a system [figs 2 and 3] comprising:

a first device [16, 22 in fig 2] to provide an interface with a first computing platform [paragraph 0013];

a second device [36 in fig 2] to provide an interface with a second computing platform [paragraph 0013]; and

an buffer device [24 in fig 2; and fig 3] comprising at least one integrated circuit [24 in fig 2], wherein the integrated circuit is to include the capability, either alone or in combination with other integrated circuits, to:

receive data from the first device [28 in fig 3],

determine whether data most recently read out includes dummy data [paragraph 0031, lines 7-12, primitive is dummy data];

determining whether an overflow state exists in part response to a determination that the data most recently read out includes dummy data [80, 52 in fig 3; fig 5; paragraph 0031, lines 12-18];

determining whether an underflow state exists in part in response to a determination that the data most recently read out includes dummy data [80, 52 in fig 3; fig 5; paragraph 0031, lines 1-12];

selectively skip over dummy data and read out contents of a next storage location in response to an overflow state [Receive Ahead, Fig 5; paragraph 0031, lines 12-19];

selectively read out a duplicate [paragraph 0037, line 11] of previously read out data in response to an underflow state [Transmit Ahead, fig 5]; and

provide the read out data to the second device [34, 37, 38 in fig 2].

18. In re claim 20, Richmond shows the first device comprises an input/output device [transmitter 22, and receiver 16 in fig 2].

19. In re claim 21, Richmond shows the second device comprises a logic with capability to provide communications protocol translation [paragraph 0022, lines 6-11].

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richmond, US PUB no. US 2002/0041650 A1, as applied to claims 1-17 above.

In re claims 18 and 19, Richmond does not specifically show the buffer device operates in accordance with PCI express and the InfiniBand Architecture. However, PCI express and the InfiniBand Architecture are very well known serial communication protocols. Richmond shows the buffer device operates in any serial protocol transmission circuitry [paragraph 0013]. Therefore, it would have been obvious to the ordinary skilled person in the art at the time the invention was made to realize PCI express and the InfiniBand Architecture are serial communication protocols that can be applied to Richmond system since Richmond stated that any serial protocols can be applied to Richmond system [paragraph 0013] and for providing more flexible system by allowing it to operate in multiple configurations.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

In the remarks, applicants argued in substance that (1) Richmond does not show determining whether an overflow state exists in part response to a determination that the data most recently read out includes dummy data, and determining whether an underflow state exists in part in response to a determination that the data most recently read out includes dummy data.

Examiner respectfully traverses applicants' remarks.

As to point (1), Richmond shows the limitations as shown in the above as "determining whether an overflow state exists in part response to a determination that the data most recently read out includes dummy data [80, 52 in fig 3; fig 5; paragraph 0031, lines 12-18];

determining whether an underflow state exists in part in response to a determination that the data most recently read out includes dummy data [80, 52 in fig 3; fig 5; paragraph 0031, lines 1-12]."

Figure 3 of Richmond clearly shows that the determination of the data most recently read out includes dummy data [80, fig 3] is determined prior to determining whether an overflow or underflow state exists [function of 52, fig 3; fig 5, Primitive Insertion/ Deletion Logic 52 determines whether there is an overflow or underflow state exist and the logic 52 needs a determination from the Repetitive primitive detector 80 which determines the data most recently read out includes dummy data].

Conclusion

This action is responsive to applicant's amendment filed on 2/17/2006, which has been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendments made to the claims, are not persuasive.

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FAF
4/23/2006

~~A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.~~

Any response to this action should be mailed to:

Mail Stop _____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The centralized fax number is 571-273-8300.

The centralized hand carry paper drop off location is:

U.S. Patent and Trademark Office
Customer Service Window, Mail Stop _____
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application should be directed to the central telephone number (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold Kim whose telephone number is 571-272-4148.

The examiner can normally be reached on Monday-Friday 9AM-5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz Fleming can be reached on 571-272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HK

Harold J. Kim
Patent Examiner
April 27, 2006/HK

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